

CLAIMS

1. A turbine blade (1) for a gas turbine, comprising a hollow airfoil (8) extending from a platform (3, 4), there being a fillet (13) between the airfoil (2) and the platform (3, 4) on the pressure side (8) or the suction side (9) of the airfoil (2), the fillet (13) containing a cooling bore (17, 18) extending along part of the length of the fillet (13), the cooling bore (17, 18) having a first end (17a, 18a) communicating with the interior of the turbine blade (1) for receiving a gaseous coolant and a second end (17b, 18b) communicating with the exterior of the turbine blade (1).
2. The turbine blade (1) as claimed in claim 1, in which the first end (17a, 18a) of the cooling bore (17, 18) is inside the platform (3, 4).
3. The turbine blade (1) as claimed in claim 2, in which the first end (17a, 18a) of the cooling bore (17, 18) in the interior of the platform (3, 4) is formed as a groove (17c, 18c) in the platform (3, 4).
4. The turbine blade (1) as claimed in any of the claims 1 to 3, in which the second end (17a, 17b) of the cooling bore (17, 18) is at the exit side of the turbine blade (1).
5. The turbine blade (1) as claimed in any of claims 1 to 4, in which the second end (17a, 17b) of the cooling bore (17, 18) is adjacent the trailing edge (7) of the airfoil (2).
6. The turbine blade (1) as claimed in any of claims 1 to 5, in which the cooling bore (17, 18) is straight.
7. The turbine blade (1) as claimed in any of claims 1 to 5, in which the cooling bore (17, 18) is curved.

8. The turbine blade (1) as claimed in claim 7, in which the cooling bore (17, 18) has a substantially constant radius of curvature.
9. The turbine blade (1) as claimed in any preceding claim, in which the cooling bore (17, 18) has a diameter of approximately 1 mm.
10. The turbine blade (1) as claimed in any preceding claim, in which the cooling bore (17, 18) has a length of at least 5 cm.
11. The turbine blade (1) as claimed in any preceding claim, in which there are two said cooling bores (17, 18), one in the fillet (13) on the pressure side (8) and the other in the fillet (13) on the suction side (7).
12. The turbine blade (1) as claimed in any preceding claim, in which the cooling bore (17, 18) is formed by electro-discharge machining (EDM).
13. The turbine blade (1) as claimed in any preceding claim, in which the turbine blade (1) is a guide blade or a moving blade.